

E-Measurement Book**1st & Final Bill****Name of Work :- EMERGENCY WORKS IN WARD NO.08, KODIGEHALI****Ref:- 1) Work order No.: BBMP/EE/BTP/WO/ 15 / 2020-21, Dt: 11.06.2020**

The Details are as Follows

- 1) Name of the Agency Sri. SAGAR. J. S (SAGAR ASSOCIATES)
- 2) Amount of the Estimate Rs.30.00 Lakhs
- 3) Work portion Amount Rs.2754469/- (Including GST charges)
- 6) Period of Completion of Work 02 Months

Measurements recorded on :- 25.02.2021

Sl. No.	Description of work	Unit	Nos.	Dimensions in Mtrs.			Quantity	Rate	Amount
				Length	Width	Depth			
1	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T & P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. - reinforced cement concrete grade M20 and above								
	Quantity as per pre-measurement recorded in Page No.1 of this e-MB	Cum					25.50	1520.00	38760.00
2	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T & P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. - rubble stone masonry in cement mortar								
	Quantity as per pre-measurement recorded in Page No.2 of this e-MB	Cum					41.40	355.00	14697.00
3	Earth work in excavation for foundation of structures as per drawing and technical specifications, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per MORTH specification NO. 304 V Marshy soil. B. in Marshy soil upto 3m depth (By mechanical means)								
	Quantity as per pre-measurement recorded in Page No.3 of this e-MB	Cum					83.23	185.00	15398.00
12	Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in hard soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications.								

Sl. No.	Description of work	Unit	Nos.	Dimensions in Mtrs.			Quantity	Rate	Amount
				Length	Width	Depth			
	Quantity as per pre-measurement recorded in Page No. 5 of this e-MB	Cum					18.86	450.00	8487.00
20	Lead for Disposal of Debris shall be payable at carriage rates by Mechanical means including loading and unloading with all leads and lifts as directed by the Engineer in charge of the work.								
	Quantity as per pre-measurement recorded in Page No. 7 of this e-MB	Cum					108.73		
							108.73	87.56	9520.00
4	Providing and filling in foundation with granite / trap broken metal 100mm. and down size, with approved sand including hand packing, ramming, watering, including cost of all materials and labour with all leads and lifts etc., complete as per the direction of Engineer-in-charge of the work.								
	Quantity as per pre-measurement recorded in Page No. 8 of this e-MB	Cum					36.22	2450.00	88739.00
5	Plain / reinforced cement concrete M15 with OPC cement @ 240 kgs with 40mm and downsize graded granite metal coarse aggregates @ 0.84 cum and fine aggregates @ 0.43 cum in open foundation complete as per drawing and technical specifications. MORTH specifications No. 1500,1700 & 2100								
	Quantity as per pre-measurement recorded in Page No. 9 of this e-MB	Cum					18.11	5400.00	97794.00
13	Providing and laying in position plain cement concrete of mix M7.5 with OPC cement @ 180 Kgs using 40mm and down size graded granite metal, coarse aggregates @ 0.85 cum and fine aggregates @ 0.58cum machine mixed, concrete laid in layers not exceeding 15 cms thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications.								
	Quantity as per pre-measurement recorded in Page No. 9 of this e-MB	Cum					4.95	5250.00	25988.00
6	Providing and constructing granite / trap / basalt size stone masonry in foundation cement mortar 1:6, stone hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. - Available stones								

Sl. No.	Description of work	Unit	Nos.	Dimensions in Mtrs.			Quantity	Rate	Amount
				Length	Width	Depth			
	Quantity as per pre-measurement recorded in Page No. ~~10~~ of this e-MB	Cum					16.56	3050.00	50508.00
7	Providing and constructing granite / trap / basalt size stone masonry in foundation cement mortar 1:6, stone hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. - New stones								
	Quantity as per pre-measurement recorded in Page No. ~~11~~ of this e-MB	Cum					53.30	4700.00	250510.00
14	Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregates @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications								
	Quantity as per pre-measurement recorded in Page No. ~~13~~ of this e-MB	Cum					25.75	5500.00	141625.00
8	Providing ruled pointing to coursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications with all leads and lifts etc., complete as per the direction of Engineer-in-charge of the work.								
	Quantity as per pre-measurement recorded in Page No. ~~14~~ of this e-MB	Cum					103.50	140.00	14490.00
19	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost pf materials, labour, HOM of machinery complete as per specifications								
	Quantity as per pre-measurement recorded in Page No. ~~15~~ of this e-MB	tonne					2.41	65000.00	156650.00

Sl. No.	Description of work	Unit	Nos.	Dimensions in Mtrs.			Quantity	Rate	Amount
				Length	Width	Depth			
9	Providing and laying in position plain cement concrete of mix 1:2:4 with cement at 240 kg, with 20mm and down size graded granite metal coarse aggregate at 0.69 cum and fine aggregates at 0.459 cum, machine mixed, concrete laid in layers not exceeding 15 cms thick, well compacted for coping including cost of all materials, labour, HOM of machinery, curing, complete as per specifications with all leads and lifts etc., complete as per the direction of Engineer-in-charge of the work.								
	Quantity as per pre-measurement recorded in Page No. 16 of this e-MB	Cum					15.52	5700.00	88464.00
10	Providing and laying in position reinforced cement concrete M20 mix with stone aggregates 20mm and downsize for slab (including steel reinforcement) including centering and shuttering, machine mixed, concrete laid in layers not exceeding 15cm thick well compacted cost of all materials, labour, HOM of machineries, curing complete as per specifications.								
	Near Hoysala apartment road	Sqm	100	0.60	0.90		54.00		
							54.00	1950.00	105300.00
11	Providing and laying in position reinforced cement concrete M20 mix with stone aggregates 20mm and downsize for slab (including steel reinforcement) including centering and shuttering, machine mixed, concrete laid in layers not exceeding 15cm thick well compacted cost of all materials, labour, HOM of machineries, curing complete as per specifications. - 200 mm thick								
	Tatanagara 6th cross	Sqm	1	10.00	1.80		18.00		
	Sahakarnagar 22nd , 23rd	Sqm	2	10.00	1.80		36.00		
	Govt school road	Sqm	1	6.00	1.80		10.80		
	Balaji layout 2nd crs	Sqm	1	6.00	1.80		10.80		
	4th & 5th crs Balaji layout	Sqm	2	6.00	1.80		21.60		
	7th crs balaji layout	Sqm	1	4.80	1.80		8.64		
							103.5	4010.00	415035.00
						Limited to			

Assistant Executive Engineer
Kodigehalli Sub Division
BBMP, Bangalore

Sl. No.	Description of work	Unit	Nos.	Dimensions in Mtrs.			Quantity	Rate	Amount
				Length	Width	Depth			
15	Direction and Place Identification Signs upto 0.9 sqm Size Board:-Manufacturing, supply and installation of retro- reflectorised cautionary, mandatory and informatory signboards made out of cube corner micro prismatic grade sheeting confirming to type XI standards of IRC :67:2012 specifications & fixed over 4 mm thick aluminium composite panel sheet having minimum 0.30 thick aluminium skin on both sides & fixed over a support frame of 25x25x3 mm MS angle and mounted on 75mm dia OR 75x75x6mm Mild steel angle of total height 2.70m with clear height of not less than 2.10 m from the ground level to the bottom of the sign board & 60 cm below ground level. The sign post should be painted with one coat of red oxide paint and white colour with brands of 30 cm height alternatively firmly fixed to the ground by means of foundation with M20 grade cement concrete of 45 cm x45 cm x 60 cm including cost & conveyance of all materials, equipment, machinery & labour with all leads and lifts, loading charges necessary for satisfactory completion of the work as directed by engineer in charge. 10 years warranty for retro reflective sheeting from the original sheeting manufacturer as per clause 6.9 in IRC 2012 & a certified copy of three years outdoor exposure report from an independent test lab for the product offered shall be obtained from the supplier.								
	Steel board fixing	Nos	110				110.00		
	quantity as per item						110.00	6750.00	742500.00
	2 page 4 (per measurement)								
16	Providing and applying enamel metal paint two coats (excluding priming coat) over new steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications.								
	Steel board fixing	Sqm	212	0.01		2.00	4.24		
			212	0.60	2.00	0.75	190.80		
	old existing boards		250	0.01		2.00	5.00		
			250	0.60	2.00	0.75	225.00		
							425.04	90.00	38254.00
17	Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. (ii) English and Roman - Hyphen and the like not to be measured and paid for " MORTH Specification No.801								
	Steel board fixing	Sqm	212	30.00		5.00	31800.00		
			212	40.00	2.00	5.00	84800.00		
	old existing boards		250	60.00		5.00	75000.00		
							191600.00	0.65	124540.00
18	Providing and laying cement concrete using 20mm and down size granite jelly of ready mixed concrete (RMC)for R.C.C works laid in 15cms thick layers and well compacted vibrating, curing, finishing with necessary cement mortar, form works and scaffoldings to withstand pumping of concrete, with all lead and lifts etc., complete (exclusive of cost of steel and fabrication charges.) Ready mixed Cement concrete M-20 (1:1.5:3) for raft foundation, column footing, main and secondary beams.								
	steps on bhadrapa layout 3rd cross	Cum	1	4.60	4.80	0.10	2.21		

Sl. No.	Description of work	Unit	Nos.	Dimensions in Mtrs.			Quantity	Rate	Amount
				Length	Width	Depth			
		Cum	1	4.60	4.20	0.10	1.93		
		Cum	1	4.60	3.60	0.10	1.66		
	c4 R	Cum	1	4.60	3.00	0.10	1.38		
	C/A	Cum	1	4.60	2.40	0.10	1.10		
	25/2/21	Cum	1	4.60	1.80	0.10	0.83		
		Cum	1	4.60	1.20	0.10	0.55		
		Cum	1	4.60	0.60	0.10	0.28		
		Cum				Total	9.94		
		Cum				Limited to	5.67	5650.00	32036.00
							Total		2459295.00
	Add: GST Charges @ 12%								295115.00
							Grand Total		2754410.00

Asst. Engineer
Ward No.08

Asst. Executive Engineer
Kodigehalli Sub Division
B.B.M.P.